comet blue

The intelligent Bluetooth enabled energy-saving radiator thermostat

User manual and Guarantee

Please read the user manual before installing the thermostat. Please keep the instruction manual for later reference e.g. remounting the thermostat on another radiator.

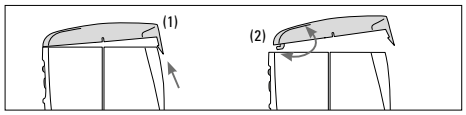
Included in delivery
1 Comet energy-saving Bluetooth enabled radiator thermostat
1 User manual
1 Connector
3 Adapters (Danfoss RA, Danfoss RAV, Danfoss RAVL)

Safety Instructions
· For indoor use only
· Use product only as described in the user manual.
· For use in dry dust free environments, keep out of direct sunlight.
· Discontinue use of product if it is obviously damaged.
· This product should not be opened, altered, modified or reengineered.

Warning: Never recharge, short or take the batteries apart. Explosion hazard! Remove used batteries from device immediately. Protect batteries from high temperatures to avoid risk of leakage! Do not use combination of new and used batteries. Clean the batteries and contacts before use. Keep batteries away from children. Avoid contact with skin and eyes. In case of contact with battery acid immediately rinse the affected area thoroughly with plenty of clean water and seek medical attention.

Intended Use
In purchasing the Comet Blue energy-saving radiator thermostat you now own a programmable radiator thermostat to be used for regulating temperature and reducing heating energy costs in enclosed rooms. – Please use the thermostat only for this purpose.

Inserting/replacing batteries
Remove the battery cover by pressing the battery cover upwards (1) at the highlighted point and then taking it out (2).



Insert the batteries as shown in the appliance.
Do not use rechargeable batteries! Ensure correct +/- polarity orientation!

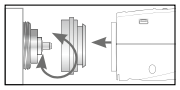
Setting date and time
After inserting the batteries for the first time the date will flash on the display. Date and time can now be set.
Set date using the selector wheel. Confirm with OK .
Set month using the selector wheel. Confirm with OK .
Set day using the selector wheel. Confirm with OK .
Set hour using the selector wheel. Confirm with OK .
Set minute using the selector wheel. Confirm with OK .
– That´s it.

PREP will appear on the display. The motor will now move completely to the open position in order to accommodate easy install. As soon as Comet Blue is ready for installation INST will appear on the display. (INST – is selectable in the menu at any time). Do not press any other buttons! Connect device with the coupling ring.
➔ mounting.

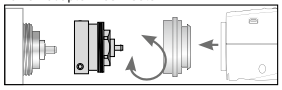
Comet Blue automatically switches between summer and winter time settings. You can also set date and time later via the menu option TIME. But in this case, Comet Blue does not automatically open to the installation position.
➔ When replacing batteries, the stored time schedule will remain active. You can check this by noting the specified time.

Installation
Comet Blue can be quickly and easily mounted on all well known valve connectors (see adapter table). It can be installed cleanly and easily without interrupting the hot water flow.

valve – connector



valve – adapter – connector



1. Open the old thermostatic valve completely, undo the connector and remove from the radiator.
2. If required select the appropriate adaptor and push on to valve.
3. Screw the connector onto the valve or adapter.
4. Attach the Comet Blue to the connector by pushing until you hear a noticeable click.

You will find additional information about the different adapters at: **www.eurotronic.org**

ATTENTION: You should be able to connect Comet Blue without applying force. Ensure that the appliance is in the „INST" or „ON" position.

➔ After disconnecting the Comet Blue from the radiator (e.g. to reprogram or move to another radiator), please ensure that „INST" is showing in menu window before attempting to re-install the device. Only attach Comet Blue to radiator when INST is showing in menu.

Adaptation (Synchronisation)
Initial installation: Press the button OK until ADAP appears on the display, Comet Blue will now be able to start its synchronisation process. The device will adapt itself to the stroke of your valve body. To do this the valve will be opened and closed several times to store the end points. This process can take up to a few minutes. After successful adaptation it returns to normal mode.
➔ Should further adaptation be necessary, e.g. if the radiator does not cool down when in the OFF position, press the button again until ADAP is shown in the menu window and the adaptation process will start again.
➔ If the error message E2 shows in the display connect Comet Blue to the radiator and remove batteries for a few seconds to initiate a reset.

There are two methods for programming your energy-saving controller. If you should want to program the Comet Blue via your smart phone or tablet please read chapter 1. Instructions for Bluetooth. If you want to program the device manually please read chapter 2. manual programming using touch keys.

1. Instructions for Bluetooth

Download the free Application "EUROprog" from App Store(iOS) or Google Play Store (Android) as required and install on your smartphone or tablet. In the settings menu activate the Bluetooth function of your smartphone or tablet.

Open the app after having installed on your smartphone or tablet. Now select Comet Blue device on the start page.

Creating Room Profiles
To add a room press the menu button. Enter the name of the room in the provided space and confirm your selection with OK. Now choose the room you have just entered and press menu again to add an appliance (radiator).

Select and press "Connect" to search for the appliance. When the appliance is located the message"New Comet Blue" will appear in display. Select this option. If this is the initial installation you will be asked to provide a PIN – **this is 000 000.** This PIN can be changed in the menu in order to differentiate between multiple appliances. You can also end the process at any time by pressing "Cancel" or alternatively start the programming in the "Offline Mode" without connecting to the appliance.

Attention! The Comet Blue will now synchronise with the date and time from your smartphone or tablet.

Programming of Comfort and Economy Temperature settings
Simply adjust to the desired Comfort and Economy temperature settings in the corresponding spaces by using the arrow located on the right hand side.

Setting the Offset Temperature
Because the temperature is measured directly at the radiator it can deviate from other parts of the room. In order to balance this deviation we can program an offset temperature. For example if 19°C is measured instead of the programmed 21°C then the offset will be 2°C.

Current Temperature
The current temperature is shown in the App.

Time Schedules
It is possible to program each day individually or to set a program for a block of days e.g. Mon-Fri.

Individual Comfort Times
ON – Each day (Mon-Sun) is allocated an individual heating/saving profile.
OFF – Weekdays (Mon-Fri) and weekends (Sat-Sun) are allocated different profiles.

Daily Comfort Times
ON – 4 heating and 4 saving time schedules programmable per day.
OFF – 2 heating and 2 saving time schedules programmable per day.
Child safety lock
ON – Child safety lock activated
Off – Child safety lock deactivated

Setting Comfort Time Zones
You can now start programming your daily/block settings depending on your selected time schedule. Click on "Start Time 1" and select the time your radiator shall start heating. Then click on "Stop Time 1" and enter the time at which your radiator shall switch back to energy-saving temperature.

Vacation Function
Here you can pre program your vacation times. During these times the Comet Blue will keep the temperature at your set levels. Up to six vacation profiles can be set. To program your vacation profile use the arrow on the right and enter your start date and time then enter the end date and time of your vacation. Lastly set the temperature that will be valid for the complete vacation profile.

Saving your room profiles
To save your room profiles on Apple devices click on "Profile" in the top right of your screen or using the menu button for Android devices.

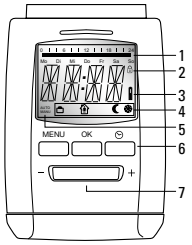
Transferring the room profiles
Once you have finished programming you can transfer desired room profile device to the Comet Blue by using the "Done" command on Apple devices or via the menu button on Android devices. An overview of the programmed profiles showing name, temperature and heating schedule will now appear on your screen.

Editing or Deleting Room Profile
To edit or completely delete your programmed room profile use the "Edit" command upper right of screen on Apple devices or the menu button on Android devices.

2. Manual Operation using touch keys and scroll wheel.

Setting date and time
After inserting the batteries for the first time the date will flash on the display. Date and time can now be set.
Set date using the selector wheel. Confirm with OK .
Set month using the selector wheel. Confirm with OK .
Set day using the selector wheel. Confirm with OK .
Set hour using the selector wheel. Confirm with OK .
Set minute using the selector wheel. Confirm with OK .
– That´s it.

Display and controls



1 Heating times
2 Child lock active
3 Battery low
4.a Vacation function
4.b Comfort temperature active
4.c Economy temperature active
4.d Window/freeze protection function active
5 AUTO or MAN mode active
6.a MENU button- directly to the main menu (standard display); in the menu one keypress takes you back to the previous level
6.b OK Button – confirms commands
6.c Button – timer functionality
7 Selector wheel

Set Up Menu
By pressing MENU you will arrive at the set up menu. Please choose one of the items with the selector wheel. With OK you can select one menu item and with the selection wheel they can be adjusted. The button OK confirms the setting. The button MENU takes you back to the previous level.

MODE	Mode select AUTO = automatic mode MANU = manual mode
PROG	programming of room profiles
TEMP	setting of comfort and economy temperature
TIME	setting of date and time
WINW	open window function
RES	reset of the device to factory default
ADAP	starting of a new valve adjustment
HOLI	vacation function
INST	installation function (Please only attach the controller to the coupling ring when INST shows on screen)
OFFS	offset adjustment between temperature in the room and at radiator
VERS	Displays the current firmware version of the device

Basic operating modes
MANU-Modus
In MAN-mode Comet Blue adjusts to the manually specified temperature.
AUTO-Modus
In AUTO-mode Comet Blue switches between two temperatures in accordance to the time schedule that has been programmed:
comfort temperature (factory default 21°C)
economy temperature (factory default 16°C)
Heating and economy times can be specified in the adjustable time programme. It is possible to set up to 8 switching points (4 heating and 4 economy times) per day. Factory default for Comet Blue is:
Heating time: Heating with comfort temperature
(factory default: 1st heating time at 07:00)
Economy time: Lowering to economy temperature
(factory default: 1st economy time at 22:00)

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Setting Heating and Energy Saving Schedule
With Comet Blue it is possible to set up to 4 heating and 4 energy saving times per day – either for individual days or for a block of several days. DAY 1 to DAY 7 represents the weekdays from Monday to Sunday. Additionally, the corresponding days are shown as abbreviation below the menu bar on the display.
Block programing:
T 1–5 = same programme from Monday to Friday
T 1–6 = same programme from Monday to Saturday
T 1–7 = same programme from Monday to Sunday
➔ For non-programmed days the factory default remains active.

Setting an individual programme
Press MENU. Select the menu item PROG using the selector wheel. Press OK. DAY 1 for Monday is shown on the display. Select day/block with the selector wheel. Confirm with OK. Set the start of the 1st heating time (symbol)with the selector wheel. Confirm with OK. Set the start of the 1st economy time (symbol) with the selector wheel. Confirm with OK. Now, if desired, a 2nd, 3rd or 4th heating/economy time can be entered.
➔ If you do not want to set a further heating/economy time confirm „ - - - -" with OK. The next day for programming is shown on the display. If you do not want to enter a further day, leave the menu with MENU.
➔ If the temperature is shown on the display the programming is finished. Within the blocks you also can overwrite single days with different times.

Setting Comfort and Energy Saving Temperatures
Press MENU. Select the menu item TEMP with the selector wheel. Confirm with OK. Set comfort temperature with the selector wheel. Confirm with OK. Set the energy saving temperature with the selector wheel. Confirm with OK.
Area ON: 8°C, freeze protection function is active
Area OFF: valve is completely open
➔ **Energy Saving Tip:** Maximum energy saving can be achieved using an economy temperature about 5 °C below the comfort temperature.

manual operation
With the selector wheel a manual adjustment of the room temperature is possible at any time. In AUTO mode this adjusted setting remains active until the next switch point is reached after which the set programme becomes active again.

Further Functions

Timer function
The timer function is selected using the timer-button. With this function a user-defined temperature can be entered for a set period. This can be very useful in case of a party, for example. Press. First the time for which the time programme has been deactivated is shown. Confirm with OK Now the desired temperature can be set. Confirm with OK. In the selected period it is not possible to change the temperature manually, the wheel is locked. Press menu to unlock it.

Offset
If the perceived room temperature differs significantly from the set thermostat temperature a temperature offset can be configured. Press MENU. Select the menu item OFFS with the selector wheel. Confirm with OK. The degree setting 0,0°C will flash on the display. Now using the selector wheel enter the desired temperature offset (from -5°C to +5°C). Confirm entry with OK.
NOTE: The temperature display will not change.

Open Window Function
If someone opens a window and as a consequence the temperature drops significantly, Comet Blue will automatically close the heating valve in order to save energy. The display will show. After the pre-set interval Comet Blue will resume normal operation.
To activate this function select "WINW" in the menu. Confirm with OK First, the level of sensitivity is selected using the selector wheel (HIGH = high sensitivity, MID = medium sensitivity (factory default), LOW=low sensitivity). Confirm with OK. Now enter the time between 10 minutes (factory default) and 60 minutes for which the valve should remain closed. Confirm with OK.

Vacation Function
You can select the temperature that will be active during the time you are away. After this period the originally defined programme becomes active again. Press MENU. Select the menu item "HOLI". Confirm with OK (appears on the display). Using the selector wheel set the end date of the vacation function (= date of the recommencement of the regular heating times). Confirm with OK. Set the time and confirm with the button OK. The signal OFF flashes on the display. Now set the temperature and confirm with OK. appears on the display. With MENU the function can be deactivated.

Child lock
You can lock Comet Blue to protect the device from tampering. Press the buttons OK + at the same time for about 2 seconds until the signal appears – device is now locked.
By using this button combination again the symbol disappears and you release the lock.

Pausing Heating - Closing the Comet Blue Valve
Press MENU. Using the selector wheel select the MANU item MODE. Confirm with OK. Select MAN and confirm with OK. Set the temperature on the display to OFF. The valve is now closed and working without a time programme. The calcification protection function remains active. After the heating pause switch in the menu to the AUTO-mode and your set programme will be resumed.

All reset
Press MENU. Using the selector wheel select the menu item RES. Confirm with OK. OK flashes, confirm with OK. Comet Blue is now in factory default setting and ready for configuration as described for initial operation. RES choose.

Freeze protection and calcification protection functions are active automatically:
Freeze protection function
If the temperature drops below 6°C, Comet Blue opens the valve until the temperature rises to above 8°C. This prevents the radiators from freezing.

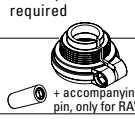
Calcification protection function
To prevent radiator valves from calcifying Comet Blue performs a calcification protection programme once a week – every Friday morning.

Cleaning and used devices cleaning
To clean the Comet Blue use only a dry or lightly damp cloth. Avoid chemical solvent – this could possibly damage the device.

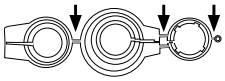
Used devices
Do not throw old devices and packaging into the household waste. These items can be recycled. Check for further information with your local authorities.

Information concerning environmental protection:
Since the adoption of the European guidelines 2002/96/EG and 2006/66/EG into national law the following applies: Electric and electronic devices as well as batteries may not be disposed of with the normal household refuse. The consumer is legally required to dispose of these articles through the official collection points or to return them to the place of purchase. Local restrictions and requirements are set by local authorities. The symbol found on the product, packaging or users manual indicates the classification of the product. By disposing of these used devices and batteries in a responsible manner you are playing an important role in our efforts to protect our environment.

Adapter

Heimeier, Junkers Landys+Gyr, MNG, Honeywell, Braukmann threadmeasure dimension of M 30x1,5	no adapter required
Danfoss RAV (accompanying pin must be plugged on the valve tapped)	 + accompanying pin, only for RAV!
Danfoss RA	
Danfoss RAVL	

Please remove all the connection pieces of the plastic adapters before you use one of the attached adapters!

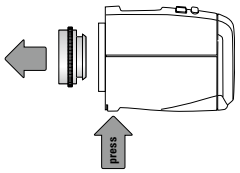


Please completely remove the connection rods highlighted in grey prior to assembly the adapter. You can find additional brass adapter models that are subject to a charge: **www.eurotronic.org**

Help and error messages

Problem	Cause	Solution
	Batteries do not have enough power.	Replace batteries.
Heating element does not warm up.	Is the boiler water temperature O.K.? Valve does not open, is it calcified after the summer pause/ heating pause?	Adjust the temperature of the boiler water. Remove the Comet Blue, move the valve back and forth per hand or with a tool.
Heating element does not cool down.	Valve does not close completely. It may be that the closing point of your valve seat has shifted.	Adapt again (see "Adapting") Move the valve stem several times by hand, it may be that adaptation is impossible because your valve is calcified or the seat no longer performs its function.
Pressure piece falls out (This can also cause an E1-error) 	Due to an endless thread the pressure piece, which is situated at the bottom, can fall out if the device has not been affixed on the valve.	Put in the pressure piece. The device can be adapted by pressing the MEN - point or by removing and inserting the batteries. The endless thread is rotating now and fixes the pressure piece again. Just install it to the radiator and adapt it once again.
E1 - E3	By pressing any key the error message will be deleted in the display and the adapter is re-started.	
E1	No adaptation possible. Comet Blue is not installed to the heater.	Is the installation OK? Install Comet Blue to the heater.
E2	Valve stroke is too short.	Open and close the valve several times manually or replace the batteries.
E3	Motor movement is not possible.	Does the valve stem move freely?

Demounting the Comet Blue



➔ To remove the Comet Blue set at Pos. ON (using the wheel turn past the highest temperature of over 28 C° to position ON), wait for a short period and then press on the unlocking device to detach the quick- release catch and pull the Comet Blue from the valve.

Declaration of Conformity
Eurotronic Technology GmbH hereby confirm that this device conforms and complies with all fundamental requirements, demands and other relevant stipulations of the guidelines 1999/5/EG. The declaration of conformity according to the R & TTE guidelines 99/5/EG are available at : **www.eurotronic.org**

Guarantee
The three-year warranty begins on the day of purchase. Please keep the receipt as evidence of purchase in the future. During the guarantee period, defective radiator thermostats may be sent to the service address below. Please ensure sufficient postage is paid. A new or repaired device will then be sent to you free of charge. Following expiry of the guarantee, you may still send the defective device to the address below for repairs. Please ensure sufficient postage is paid. Repairs carried out after the guarantee period are subject to a charge. Your legal rights are not affected by this guarantee. There is no new warranty period starting when repairing or replacing the device. Please note that we only grant warranty on the function of the device. We will not grant warranty for the interaction between the thermostat and the bottom part of the valve. The technical data is only valid for the use of the following valves: Heimeier, Junkers Landys + Gyr, MNG, Honeywell, Braukmann (measure of thread M30 x 1,5), Oventrop (M30 x 1,5) Danfoss RA, RAV and RAVL. Please see the combinations of the devices on our website (www.eurotronic.org/ Adapter list) EUROtronic does not issue a guarantee when using the thermostat with valves which are not mentioned above.

Eurotronic Technology GmbH
Südweg 1
36396 Steinau-Ulmbach
Telefon: 06667/91847-0
Servicehotline: 06667/91847-17
eMail: info@eurotronic.org
Internet: www.eurotronic.org

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